

**OCTOBER**  
**2006**

## SAUCERS, SPACE & SCIENCE

## News you may have missed

**A heavy form of hydrogen created just moments after the Big Bang has been found in larger quantities than expected in the Milky Way, a finding that could radically alter theories about star and galaxy formation, researchers said on Monday.**

♦ The Epoch Times ♦ August 17 - 23, 2005

WASHINGTON - A heavy form of hydrogen created just moments after the Big Bang has been found in larger quantities than expected in the Milky Way, a finding that could radically alter theories about star and galaxy formation, researchers said on Monday.

This form of hydrogen, called deuterium, has apparently been hiding out in interstellar dust grains, changing from an easily detectable gaseous form to a harder-to-see solid form, the French and U.S. team of astrophysicists said.

Writing in the August 20 issue of the *Astrophysical Journal*, the researchers said they used NASA's Far Ultraviolet Spectroscopic Explorer, or FUSE, satellite, to ferret out the

hidden hydrogen.

Deuterium -- a form of hydrogen with not only a proton but also a neutron in its nucleus -- produces a telltale spectral fingerprint in the ultraviolet light range, which FUSE can see.

Jeffrey Linsky of the University of Colorado, who led the study, said scientists had assumed that at least a third of the primordial deuterium present in the Milky Way was destroyed over time as it cycled through the stars.

But FUSE found deuterium exists in amounts less than 15 percent below what was there originally. And it is not distributed evenly.

"Where there are high concentrations of interstellar dust in the gal-

axy, we see lower concentrations of deuterium gas with FUSE," Linsky said in a statement. "And where there is less interstellar dust, we are measuring higher levels of deuterium gas."

So something in the theory is wrong, Linsky said.

"This implies that either significantly less material has been converted to helium and heavier elements in stars or that much more primordial gas has rained down onto the galaxy over its lifetime than had been thought," he said.

"In either case, our models of the chemical evolution of the Milky Way will have to be revised significantly to explain this important new result."



**MITCHELL SMYTH**  
Meridian Writers' Group

RACHEL, Nevada — Take a turn off State Route 375 here in south-central Nevada, drive up a gravel road and you come to a place that doesn't exist. That, anyway, is what the U.S. government says.

To you and me the huge swath of desert west of Rachel is known as Area 51. It's where — depending on which stories you believe — the U.S. military is testing top secret weapons; or building flying saucers from the wreckage of crashed extraterrestrial craft (as in *Independence Day*); or experimenting with something else that Buck Rogers or Anakin Skywalker would recognize.

Pentagon officials predictably deny all this — they even deny that Area 51 exists — although they admit there's a

gunnery and bombing range somewhere around here. Maybe, I thought, I should have a closer look, so I took the gravel road.

It stopped me short at a gate in a perimeter fence. "Warning. Restricted area," a sign said. Behind it, surveillance cameras swivelled this way and that on their stilts.

### Deadly force

I was about to climb over the gate when I read the line in red paint on the sign: "Use of deadly force authorized." I decided to go no farther (though I did disobey the further warning: "Photography in this area is prohibited.")

"They wouldn't have shot you," UFO "expert" Chuck Clark assured me later. "But they'd certainly have arrested you if you'd gone in and you'd have been fined \$600. It's an expensive lesson."

Clark, author of *The Area 51*

## The mystery surrounding Area 51 brings the curious to Nevada town

*Handbook*, has spent years trying to find out exactly what is happening in the top-secret installation.

He and the other residents of Rachel, the closest town to Area 51, know that something is going on in their backyard. They have all seen enough strange sights through the years. Many of these, Clark says, can be explained rationally. Flares, dropped for bomb tests, can be mistaken for UFOs.

And this is probably one of the places where top-secret aircraft, such as the U-2 spy plane of the 1950s and the B-2 Stealth bomber in the 1980s, were tested.

Still, he says, there have been other sightings that defy rational explanation. And

that's what brings the tourists, many of them "UFOlogists," to Rachel. The government's veil of secrecy helps fuel the rumours.

Many believe that in a morgue in Area 51 there are bodies of those little grey men allegedly recovered from the crash of a "flying saucer" in Roswell, N.M., in 1947.

"As they say in *The X-Files*, 'The truth is out there,'" says Rachel's Pat Travis, owner of The Little A'Le'Inn (pronounced "little alien.")

### Population 98

The pub, restaurant and motel is gathering place for the curious. "Welcome UFOs and crews," one sign says. Another, beneath a drawing of a flying saucer, reads: "Self parking."

Rachel (population 98) is the only town on the 160 km stretch of two-lane blacktop Route 375 running alongside Area 51.

To help the tourist trade, the residents persuaded the state to designate 375 the "Extraterrestrial Highway," and signs along the road now carry that name.

For more information on the Extraterrestrial Highway visit the U.S. transportation department's National Scenic Byways Program website at [byways.org/browse/byways/2029](http://byways.org/browse/byways/2029).

For more on Rachel, visit [rachel-nevada.com](http://rachel-nevada.com) and [travelnevada.com](http://travelnevada.com).

TORONTO STAR ★ SUNDAY, MAY 21, 2006

## Christie Tucker fills us in on a paper that said yes to aliens

Occasionally, *Dose* assignments produced sniggering around the privacy-devoid table, such as the time I shyly called NASA robotics chief and former astronaut Chris Had-

field back after an interview to ask if he believes in aliens. (He does, by the way, and has an extremely eloquent and profound explanation as to why.)

TORONTO SUN MONDAY, AUGUST 7, 2006

## What about UFOs?

Do you believe in Iraqi WMD? Did Saddam Hussein's government have weapons of mass destruction in 2003?

Half the people in the U.S. appear to think so, a poll finds, and experts see a raft of reasons why: a drone of voices from right-wing radio to

bloggers to the Oval Office, a surprise headline here or there, a rallying around a partisan flag, and a growing need to justify the war in Iraq.

People tend to become "independent of reality" in these circumstances, said opinion analyst Steven Kull.

—AP

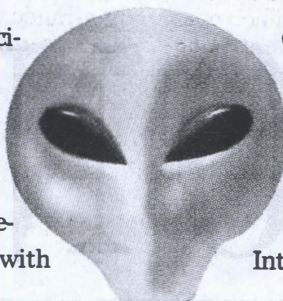


**And the Weekly World News** brings important news from the Federal Center for Extraterrestrial Identification on how to tell if there are microscopic space aliens in your carpeting: **1.** Fibers appear to move slightly and fairly frequently when no one is around. **2.** Tiny food particles dropped by children suddenly disappear. **3.** Dogs and cats seem fascinated by their feet. **4.** Family members begin to act strangely and talk about "phoning the homeworld." Vacuuming and cleated shoes are said to solve the problem. *Samantha Grice.*

NATIONAL POST, MONDAY, JULY 31, 2006

NATIONAL POST, TUESDAY, AUGUST 8, 2006

**They were likely too busy** cowering in terror to appreciate the milestone at the time, but Jesuit missionaries living in 17th-century New France recorded Canada's first UFO sighting. That's according to an author and self-described "ufologist" who says more Canadians than ever are convinced they are seeing unusual objects — even alien spacecraft — in the firmament. Chris Rutkowski, co-author with



Geoff Dittman of the new book *The Canadian UFO Report: The Best Cases Revealed*, says opinion polls suggest one in 10 Canadians — some three million of us — have seen a UFO. From 1994 to 2004, official Canadian UFO accounts more than quadrupled, from 189 to 882, as sighters took advantage of Internet reporting sites. *CanWest News Service*



# HELLO?

Giggle if you must  
but astronomers  
are still waiting  
for a phone call  
from outer space.  
It's a size issue

KURT KLEINER  
SPECIAL TO THE STAR

**O**n a wooded ridge in Harvard, Mass., a specially built telescope has spent the last month scanning the skies for laser signals from alien civilizations. No luck yet.

But the Oak Ridge Observatory telescope is a sign that the Search for Extraterrestrial Intelligence (SETI) is alive and well. Despite official indifference — neither the Canadian nor the United States government funds SETI research — scientists around the world continue to scan the skies, looking for proof that we are not alone in the universe.

In addition to the Oak Ridge Observatory telescope, the Allen Telescope Array this summer will begin an in-depth survey of the skies, listening for radio signals from a million different stars in a search that will take until at least 2025. By the time it's done, we should have a better idea of whether or not anyone out there is trying to get in touch.

SETI remains a fringe discipline, partly because of what people in the field refer to as the "giggle factor." To a lot of observers, the idea that aliens are beaming us messages seems too ridiculous to take seriously.

That was certainly the case in 1993, when the U.S. Congress cut a \$12 million NASA SETI program. Sen. Richard Bryan, the Nevada Democrat who led the fight to kill the program, joked at the time that after spending millions of dollars, "we have yet to bag a single little green fellow." For Bryan and many others, SETI gets tossed into the same mental box where they keep UFOs, Bigfoot, and *Star Trek* conventioners.

In fact, the search for extraterrestrial intelligence has been a legitimate scientific enterprise from the start. In 1960, Frank Drake, at the time an astronomer at the National Radio Astronomy Observatory in Green Bank, W. Va., pointed a radio telescope at two nearby stars and listened for signals that could have been generated by intelligent beings. He didn't find anything, but he did launch the modern search for extraterrestrial intelligence.

"It is difficult to think of another enterprise within our capability and at relatively modest cost which holds as much promise for the future of humanity," wrote Carl Sagan, the famous astronomer and SETI enthusiast who died almost 10 years ago.

**'It is difficult to think  
of another enterprise  
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THE LATE CARL SAGAN  
*Astronomer and SETI enthusiast*

Sagan thought that technologically advanced civilizations might send important advice that would help humans to survive our technological "adolescence" without destroying the planet.

SETI also has its legitimate scientific skeptics, who think that the conditions for life are so unlikely that they must occur only rarely, or else that intelligent life is a fluke.

But for optimists, SETI has one big thing going for it: the size of the universe. With 100 billion stars in our galaxy alone, and more than 100 billion other galaxies in the universe, optimists think that life has probably developed countless times, and that some of that life is intelligent.

Drake formalized this line of thought when he came up with the Drake Equation, which calculates the number of civiliza-

tions in our galaxy that could be trying to communicate with us right now.

Start with 100 billion stars in our galaxy. Assume that 50 per cent of those have planets around them, and each of those has at least one planet capable of sustaining life. Assume that any planet that could sustain life has a 50 per cent chance of developing it, and that once life develops there is a 20 per cent chance of intelligent life evolving.

Assume that only 20 per cent of intelligent beings are interested in communicating. Then assume that those who are interested in communicating are capable of sending out signals for 10,000 years before their civilizations collapse. Using those numbers, our galaxy should contain about 1,000 alien civilizations busily beaming messages around right now.

Of course, you can monkey with those numbers any way you want; credible estimates of civilizations interested in communicating range anywhere from millions to only one: us. But working through the numbers this way convinces a lot of people that the idea isn't totally absurd.

**M**ost of the SETI work so far has involved listening for radio signals. One idea is that aliens would transmit their signal at or around a frequency of 1,420 gigahertz, which is the frequency emitted by hydrogen. Hydrogen is the most abundant element in the universe, and radio astronomers are often tuned in to that frequency in order to map hydrogen clouds.

Whatever frequency they used, aliens would need to make sure we recognized the signal. It seems likely that they would transmit some sort of basic mathematical information; for instance, a list of the first dozen or so prime numbers, repeated again and again.

In fact, though, almost any non-random pattern would be likely to catch our attention. It's even possible that we've detected one or more of these signals already.

The most famous is the "Wow!" signal recorded by the "Big Ear" radio telescope at Ohio State University in 1977.

The 72-second signal was so

startling that statistics professor Jerry R. Ehman wrote "Wow!" on the printout. But the signal was never repeated. Many other signals have gotten attention over the years but have also remained unrepeated.

SETI researchers are still listening for radio signals. For instance, the University of California at Berkeley runs the SERENDIP (Search for Extraterrestrial Radio Emissions from Nearby Developed Intelligent Populations) project, which piggybacks observations off of the Arecibo Observatory in Puerto Rico.

Some of the raw data are seen by millions of volunteers, who download it to their home computers and analyze it using spare computing cycles. So far about five million home users have participated.

Meanwhile, the Optical SETI telescope at Oak Ridge Observatory is part of a relatively new approach to the search for extraterrestrial intelligence.

For decades, scientists assumed that visible light would be useless for communicating, since it would be too difficult to see against the background light of the transmitting planet's nearby star.

But it turns out that by using extremely brief pulses of laser light, a beacon could outshine its nearby sun by thousands of times. The drawback is that the beacon would have to be pointed straight at us to be detected.

The idea is that anyone setting up a beacon like this would choose hundreds or thousands of likely stars, and send messages to each in turn, maybe for just a few seconds at a time.

One of the most stinging criticisms of SETI has always been the Fermi Paradox, named after physicist Enrico Fermi, who once asked the simple question, "Where are they?"

If there really are thousands or millions of civilizations out there, why haven't we picked up any signals, despite 45 years of looking?

The answer is that we haven't been looking hard enough, says Seth Shostak, an astronomer at the non-profit SETI Institute in Mountain View, Calif.

Continued on the following page



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Until now, SETI projects have had to make do with telescopes they could borrow for a few days or weeks at a time, or else been forced to make their observations at the same time that other astronomers were looking for other things.

That means we've only taken a good look at a few thousand stars. But even if there were 10,000 civilizations beaming signals straight at us, with 100 billion stars in the galaxy we would have to look at a million stars before we could reasonably expect to see even one of the signals.

The new privately funded, dedicated SETI telescopes like the Allen Telescope Array and the SETI optical telescope will have the time to look at a lot of stars in the next few decades and make it much more likely that we'll be able to detect any transmissions.

But that brings up the biggest question of all: Why would anyone bother sending a message in the first place?

The universe is such a big place that light takes years to reach us even from the nearest stars. If we do detect a signal, it's likely to be hundreds, thousands, or even tens of thousands of years old. Why would anyone go to the time, trouble and expense of sending a signal that couldn't be answered for thousands of years?

For one thing, an advanced civilization might not think it's very much trouble. Shostak points out that humans have had radio for only about 100 years. We've had lasers for only about 50 years. Older, more advanced civilizations with better technology would find it cheap and easy to send interstellar signals. "It might be a high school science fair project for them," he says.

And if they're anything like us, the urge to advertise their existence will be strong. From the Egyptian pyramids to the graffiti on the wall of a downtown building, we humans seem to have a deep need to announce our existence.

We've even sent a few of our own signals into space. In 1974, the Arecibo radio telescope broadcasted a message to a star cluster 25,000 light years away. We've also packed written information and sound recordings in some of our space probes, on the off chance they'll be picked up by other beings some day.

Although it's hard to guess about alien psychology, this need to announce our existence might be an impulse common to intelligent beings. Like us, they might want to shout out to the Universe, "We're here — is anyone there?"

Kurt Kleiner is a science writer based in Toronto.

TORONTO SUN FRIDAY, JULY 14, 2006

### Holy egg amazes farmer

ALMATY — A chicken in a small Kazakhstan village has laid an egg with the word "Allah" inscribed on its shell. "We'll keep this egg," Bites Amantayeva, a farmer from the village of Stepnoi, told Kazinform news agency.

**THE LARGEST** planet ever found orbiting another star is so puffy it would float on water, astronomers said yesterday. Dubbed HAT-P-1, the planet is both the largest and least dense of the worlds outside our solar system. *Associated Press*



HAT-P-1 is an oddball planet, since it orbits its parent star at just 1/20 of the distance that separates Earth from our sun. The planet whips around its star once every four-and-a-half days. *Associated Press*

**A British scientist offering a spook school** at a haunted castle in England is using ghostbuster techniques based in part on research by a Canadian professor. Jason Braithwaite, a cognitive neuroscientist at Birmingham University — and a skeptic — is teaching a course about parapsychology that includes an overnight vigil in Muncaster Castle, on the

metro

THURSDAY, AUGUST 17, 2006

## Bond plane haunted, crew says

Crew on the James Bond film *Casino Royale* have refused to get on a stunt jet because it's haunted, *Ananova.com* reports. The workers fear the 747 is protected by the spirit of a passenger who died from a heart attack on board.

Crew say the lights and warning systems have come

on during filming — even though the jet has no power. Crew also claim to have seen the woman's ghost gliding up and down the aisles of the 30-year-old plane.

According to the U.K.'s *Sun*, one worker said, "We were asked to stay on it overnight for one scene, but several of the crew refused."

"Some won't get on board at all because of the ghost. It's been a real problem."

Spokesman David McAllister said, "I am aware of the plane being haunted. Everyone knows the story."

METRO TORONTO NEWS SERVICES

TORONTO SUN THURSDAY, SEPTEMBER 21, 2006

### Every ghost needs a home

SINGAPORE — As neighbourhood spats go, Chow Ai Hwa's legal battle to ensure that her husband's ghost has access to his former home is unusual.

Developers want to tear down her apartment, but Chow, 80, believes the spirit of her dead husband would become a "homeless, wandering soul" if their home of 37 years was demolished.

metro  
WEEKEND,

SEPTEMBER 15-17, 2006

metro

WEDNESDAY,

SEPTEMBER 13, 2006

## Crowds flock to 'ghost tree'

**MALAYSIA** Scores of people are flocking to a village in northern Malaysia to see a betel nut tree which has sprouted a human-like face, reports said yesterday.

Newspapers carried pictures of the green face on a frond of a seven-metre-high tree. The unexplained phenomenon has led villagers in Kampung Paya to dub it the "ghost tree," a report said.

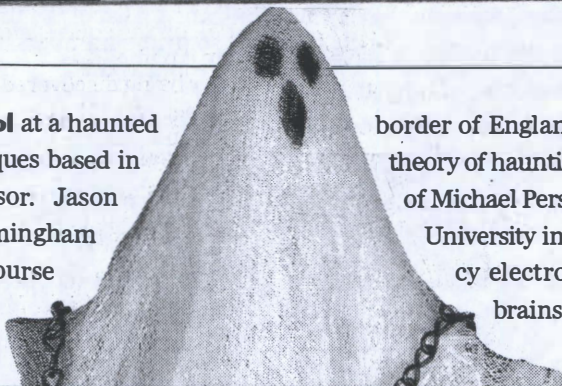
Owner Miah Majid, 60, told the newspaper that she spotted the face last week and that it was the second time an unusual shape had appeared on the 10-year-old tree in her backyard. The first formation was in the shape of an eye, she said.

ASSOCIATED PRESS

NATIONAL POST, FRIDAY, APRIL 21, 2006

border of England and Scotland. Prof. Braithwaite's theory of hauntings includes elements from the work of Michael Persinger, a neuroscientist at Laurentian University in Sudbury, who believes low-frequency electromagnetic fields stimulate people's brains, causing them to experience ghosts.

CanWest News Service





## Strange sightings

*The Canadian UFO Report* is a strange book. Not because it deals with alleged extraterrestrial visits to earth — thousands of books do that. Also quite a few books (although not nearly as many) debunk the UFO myths.

But this volume manages to not overtly take sides on the claims of alien visitation. Proceeding through many of the famous and lesser-known UFO reports in this country, along with other bizarre stories of the paranormal, authors Chris Rutkowski and Geoff Dittman explain some away and leave the question

open on others.

Alas for prospective book sales, their conclusion of “no definite conclusion” is unlikely to excite the believers who devour the pro-alien hype. And skeptics like me will also be left dissatisfied. After more than a century of reports and after decades of serious study into thousands of cases, not a single shred of hard evidence has ever been found to support the claims of ET sightings.

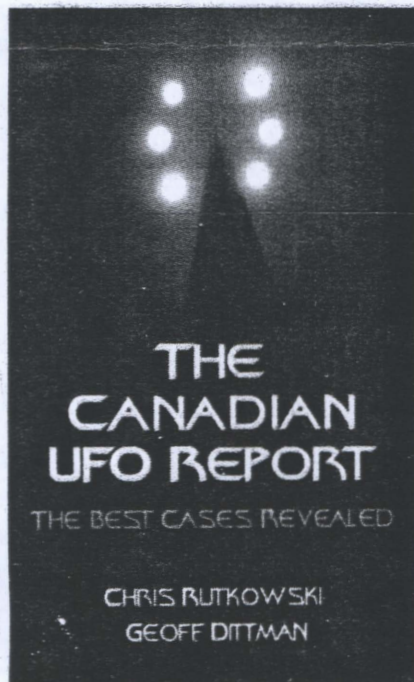
At some point we have to say that based upon the lack of evidence, it seems highly unlikely the lights-in-the-sky anecdotes are reports of little grey men in their flying saucers but rather are more prosaically explained.

Rutkowski and Dittman do give these ordinary explanations too and they admirably provide other information that can be referenced by both sides.

But too often they report without evaluation cases that have been thoroughly discredited elsewhere, leaving the mistaken impression that a large number of credible reports are on record.

*The Canadian UFO Report* is a book that would appeal most to the mild believer or the soft-core skeptic in the great white north.

Dundurn Group, trade paperback \$24.99.



NATIONAL POST, FRIDAY, AUGUST 18, 2006

**A Canadian-led team of astronomers** has found the faintest stars ever seen: a series of red and white dwarf stars 8,500 light years from Earth. “The light from these faint stars is so dim that it is equivalent to that produced by a birthday candle on the moon,” said lead researcher Dr. Harvey Richer, of the University of British Columbia. Dr. Richer’s team used NASA’s Hubble Space Telescope to spot the dim light from the stars, in a cluster of brighter stars called NGC 6397. “There are no fainter such stars waiting to be discovered,” he said in announcing the findings yesterday at the 2006 International Astronomical Union General Assembly in Prague. Even with the powerful Hubble cameras, it took the astronomers nearly five days to find the handful of faint stars. *National Post*



TORONTO STAR ★

FRIDAY, SEPTEMBER 15, 2006

Space

## ‘Dwarf planet’ named after goddess of chaos

A distant, icy rock whose discovery shook up the solar system has been given a name: Eris.

After being discovered last year, Eris — named after the Greek goddess of chaos and strife — ignited a debate about what constitutes a planet. Some argued it should be welcomed as the 10th planet since it was larger than Pluto. Astronomers last month voted to shrink the solar system to eight planets, downgrading Pluto to “dwarf planet,” a category that includes Eris.

FROM THE STAR’S WIRE SERVICES

OCTOBER 5, 2006 • 24 HOURS

## Possible new distant planets discovered

Astronomers have discovered a possible new class of planets outside the solar system that hug their parent stars so tightly that they take less than a day to complete an orbit.

Astronomers working with the Hubble Telescope have so far identified five possible planets that orbit their parent stars in as few as 10 hours, according to a paper to be published Thursday in the scientific journal *Nature*.

The objects appear to be low-density gas giants similar to Jupiter, orbiting stars smaller than the sun.

About 200 planets have been discovered outside the solar system so far, including gas giants eight times closer to their parent stars than Mercury is to the sun.

Those previously

known planets take a longer time, between 1.2 days and 4 days, to orbit their stars. Astronomers say they form farther out and are pulled closer by the star’s gravity. Those pulled too close are burned up by their parent stars.

The discovery of these “ultra-short period planets” suggests that stars smaller than the sun can pull planets closer without burning them up, said the team of astronomers led by Kailash Sahu of the Space Telescope Science Institute in Baltimore.

Sahu’s team found 16 objects near the center of the Milky Way that could be planets, by looking for stars that dimmed when their planets passed in front of them.

-Reuters

metro

WEDNESDAY, OCTOBER 4, 2006

## Big-bang scientists win physics Nobel

Americans John Mather and George Smoot won the 2006 Nobel Prize in physics yesterday for work that helped cement the big-bang theory of the universe and deepen understanding of the origin of

galaxies and stars. Mather, 60, works at the NASA Goddard Space Flight Center in Greenbelt, Md., and Smoot, 61, works at the Lawrence Berkeley National Laboratory in Berkeley, Calif. ASSOCIATED PRESS

metro

THURSDAY, AUGUST 24, 2006

## Bradbury sets sights on new film

**PEOPLE** Author Ray Bradbury has turned 86 and still has his eye on the stars — both celestial and earth-bound.

The *Martian Chronicles* author says he believes humans will return to the moon, then go to Mars and other worlds.

“Our future is wonderful,” he said on a Pasadena-based public radio station, adding he is also working on a screenplay for a new movie version of *Chronicles*. He hopes the film will start shooting within two years.

ASSOCIATED PRESS



# Mars photos

SUNDAY SUN OCTOBER 1, 2006

## Mars orbiter snaps pics

PASADENA, Calif. — A spacecraft equipped with the highest-resolution camera ever to orbit Mars has begun sending highly detailed images of a giant canyon on the red planet, NASA said.

The first image taken by the Mars Reconnaissance Orbiter's powerful camera from low altitude shows rocks and features as small as armchairs, NASA said.

**- Sun wire services**

TORONTO STAR

SUNDAY, FEBRUARY 26, 2006

## SO MANY STARS, SO LITTLE TIME

Three years ago, Carnegie Institution astronomer Margaret Turnbull published a catalogue of 17,129 "habitable stellar systems" that might harbour alien life, out of several hundred billion in our Milky Way galaxy alone.

This past week at the AAAS meeting she unveiled a short list of 11 "habstars."

"These are places I'd want to live if God were to put our planet around another star," Turnbull said.

Age was a crucial factor in the picks. Unless a star is at least three billion years old, there hasn't been enough time for planet formation and the evolution of life.

Turnbull's choices must also boast iron content at least half that of our sun, a sign there were enough heavy metals in the initial cloud of dust and gas for planets to form.

As well, red giants, white dwarfs or variable stars need not apply. Nor any star more than 50 per cent heavier than the sun, because these burn out too fast.

Turnbull's top candidate for scanning by radio telescopes among five short-listed stars is beta CVn, located in a constellation called Canes Venatici, or the Hound Dogs.

For checking out by proposed new planet-spotting telescopes, Turnbull fingered epsilon Indi in the constellation Indus as tops among six stars.

But are these exoplanet seekers engaging in Vulcan mind melds?

Two stars on Turnbull's list, 51 Pegasus and epsilon Eridani, have already been surveyed without success by MOST, Canada's own space telescope, and four more are on the prospective viewing list.

ative viewing list.

TORONTO SUN TUESDAY, MARCH 14, 2006

## 'Super-Earth' discovered

**WASHINGTON** — An icy “super-Earth” has been found orbiting a distant star, astronomers said yesterday. The planet weighs 13 times as much as Earth and is about 9,000 light years away. But instead of circling close to its star, as Earth does, it is about as distant from its star as Jupiter is from the sun.

TORONTO SUN THURSDAY, AUGUST 17, 2006

## Space race down east

**HALIFAX** — A space launch facility in Cape Breton will go ahead even if it doesn't win a NASA bid to service the International Space Station, the company behind the project said yesterday.

PlanetSpace, a partnership between two entrepreneurs in Canada and the U.S., is planning a facility that could soon launch astronauts, cargo and tourists into space.

metro

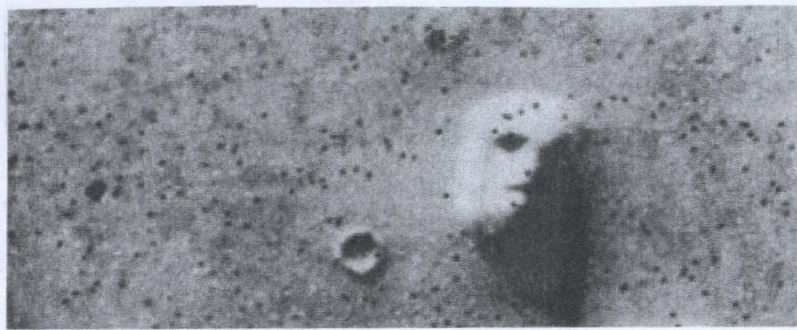
TUESDAY, OCTOBER 10, 2006

**THE BONES** of a giant camel dating back 100,000 years have been unearthed in the Syrian desert, a government newspaper reported over the weekend.

Associated Press

**BASSAM** Jammous, director general of the Antiquities and Museum Department in Syria, said the animal would have been some four metres tall — double the size of the modern-day camel. Associated Press

Associated Press



**The original “Face on Mars” photo, which left some speculating whether the red planet once harboured intelligent beings.**

**By KAT PIPER**

Epoch Times United Kingdom Staff

New high-resolution images of the surface of Mars, taken by the European Space Agency's Mars Express Orbiter, reinforce the interpretation that the famous "Face on Mars" is a natural rock formation.

On July 22, using the High Resolution Stereo Camera on board the Mars Express spacecraft, scientists were able to make the most detailed 3D images to date of the Cydonia region where the “Face” is situated. Previous attempts to image the area from as far back as April 2004 had been prevented by atmospheric dust and a high flight altitude.

The “Face on Mars” became famous 30 years ago when NASA published a photograph of the Martian surface taken by the Viking 1 space probe, which showed an eroded hill with apparent “facial features” highlighted by sunlight and shadow.

Conspiracy theories abounded. Enthusiasts speculated that the 2.4km long "Face" had been built by intelligent beings and that NASA was trying to cover it up. Numerous "pyramids" and "ruined cities" were recognised in nearby landforms and compared with the Sphinx and aerial photographs of the Egyptian pyramids. Some Mars fans with technical

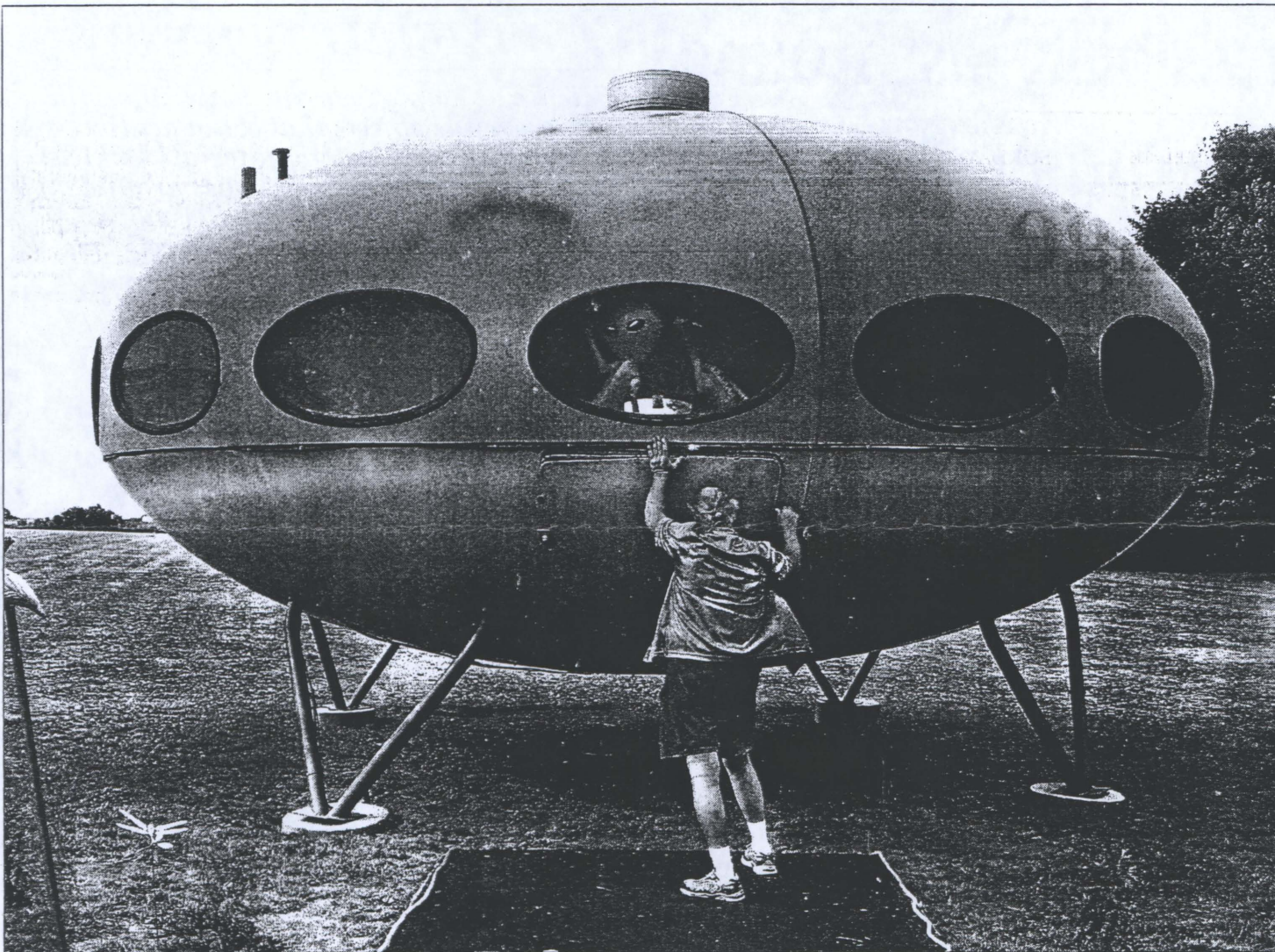


(G. Neukum/ESA/DLR/FU Berlin, MOX)

New photos have shown the "Face on Mars" to be an illusion. The face became famous 30 years ago when NASA published its photograph taken by the Viking 1 space probe.

October 12 - 18, 2006 ♦ The Epoch Times





PETER THOMPSON PHOTOS/NEW YORK TIMES PHOTOS

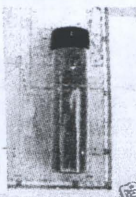
Richard Pisani closes the hatch to his Futuro home, which he keeps in the yard behind his house in Danvers, Ill. The home — with its unique flying saucer look — is one of a dwindling number around the world. The Futuro was designed in 1968 by a Finnish architect.

24 HOURS • AUGUST 31, 2006

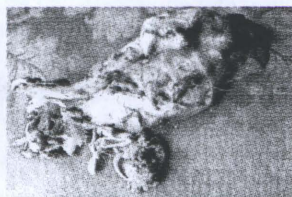


**#1 Alien trapped in tree hit by lightning.** Apparently the lightning was an alien ship sending down an alien and accidentally put him inside the tree. Item number: 260003290490

top 5  
favourite  
alien  
auctions



**#2 Soil from Area 51.** Add it to your garden and in three months it will hit you: you just spent 10 bucks for a 2-ounce vile of useless Nevada dirt. Item number: 110011281306



**#3 Alien movie prop.** This embryo prop was used in the movie *Alien Resurrection*. Never saw it, but it sounds like a real tearjerker. Item number: 260012243863



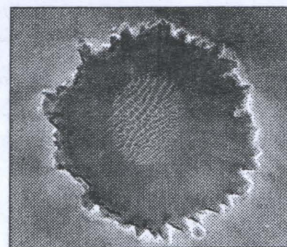
**#4 23K Alien abduction medallion.** Not only will this medallion stop aliens from messing with you, it also claims to stop nosebleeds. Item number: 260024907054



**#5 Alien abduction degree.** Finally, something to show for all that horrible probing you endured. Item number: 270022884017

To view these oddities in their natural habitat simply paste the item number on the EBay browser.

**U.S. scientists yesterday unveiled** unprecedented close-up images of a massive crater on Mars that they said could open the book on the Red Planet, from its formation to its history with water. The images were taken three days ago by NASA's Mars Reconnaissance Orbiter (MRO) — which arrived in its permanent orbit this week after an August, 2005, launch — and by the robotic rover Opportunity. The MRO is providing support for Opportunity, which is exploring the layered rocks in cliffs ringing the enormous Victoria crater, pictured, probably the biggest crater NASA will get to with its two rovers. "It gives us a window on the past on the planet," said Doug McCuistion, director of NASA's Mars Exploration Program. *Agence France-Presse*





# Invisibility just around the corner: scientists

BY JEFFREY HAWKINS

It is unlikely to be a magic pill or a special cloak, but scientists insist they are getting closer to making invisibility a reality.

A paper, published yesterday in the *New Journal of Physics*, describes the physics of several theoretical devices that could create the ultimate illusion.

Much like how Marvel Comics' superhero Invisible Woman reflects the light around her while fighting crime, scientists say invisibility can happen if light can be bent around an object.

After all, "objects are only visible because they reflect light rays," explains lead author Ulf Leonhardt at St. Andrews University, Scotland. The physicist says his ideas are based on "metamaterial" — devices that will bend light or radio waves around objects to make them appear invisible.

"Any object placed inside the hole will become invisible," Dr. Leonhardt says.

Like a stream flowing around a stone — essentially creating a "hole" in the water where anything can be hidden and remain unnoticed from the outside — Dr. Leonhardt says light can bend around that hole.

"If you replace the water with light, then you would not see that there was something present because the light is guided around the person or object. You would see the light coming from the scenery behind as if there was nothing in front," he says.

The bending of light causes many optical illusions, such as mirages in the desert. Light bends in the hotter air near the ground in the desert and this causes a reflection of the sky on

the ground — a mirage.

"An invisibility device bends light without producing an image. To do this, the devices must have carefully designed refractive index profiles, Dr. Leonhardt says.

The refractive index measures the length that light has to travel in a medium. The higher the refractive index, the longer the optical path is to the light ray. Light rays bend when the refractive index of the medium they are travelling through varies. According to Fermat's Principle of optical paths, light will follow the shortest optical path length.

In the case of the mirage, air closer to the desert ground is hotter and has a lower refractive index than the cooler air higher up. So light bends close to the desert floor in order to stay in the lower refractive index region, Dr. Leonhardt says. "The next step is actually making one of these theoretical devices," he says.

Experimental physicist David Schurig of Duke University in Durham, N.C., said he is working on such devices. So far, the metamaterials he uses only make objects invisible to radar.

Metamaterials — clusters of small artificial bits of patterned metal films — can be engineered to bend almost any kind of electromagnetic energy.

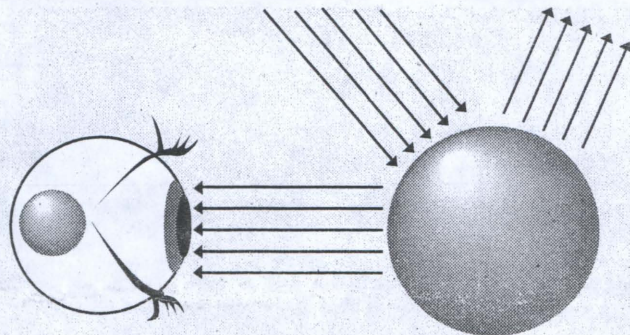
Mr. Schurig said that "probably this year," scientists will produce a metamaterial that can shield equipment from microwave radiation.

But protecting objects from visible light — like creating an invisibility cloak — is "much further down the road," the physicist said. "It is very possible, but not likely something in the near future."

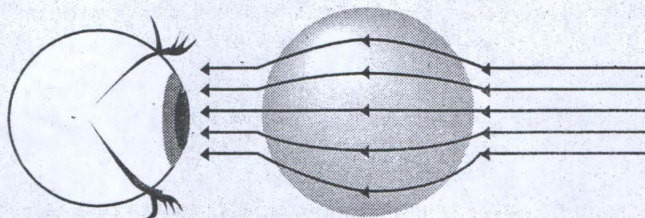
National Post,  
with files from Reuters  
jhawkins@nationalpost.com

## INVISIBILITY PHYSICS

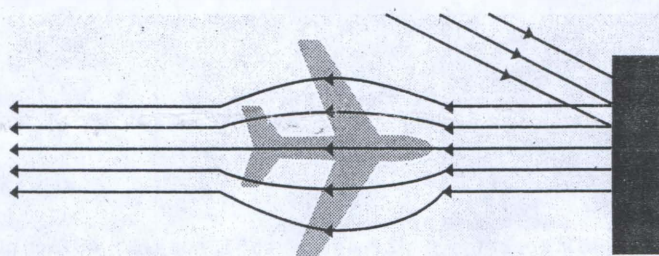
*Science attempts to create materials with man-made objects that could act like artificial atoms, "metamaterials," which would allow light waves to pass around an object in the same way water moves around objects instead of being reflected.*



Normally when light hits an object it is reflected. The reflected light allows the object to be seen. Some wavelengths of light are absorbed by the object, allowing us to perceive colour.



An object coated with the theoretical metamaterial would have light bend around it. Since light is not being reflected or absorbed by the object, the object would be rendered invisible.



Theoretically, there is one drawback to this form of invisibility. Since light is moving around the material, not through it, if a vehicle were made invisible in this manner, the pilot would be blind.

SOURCE: BBC NEWS, NEW JOURNAL OF PHYSICS

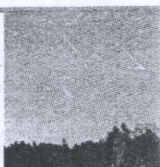
ANDREW BARR / NATIONAL POST

### metro

WEDNESDAY, SEPTEMBER 13, 2006

**A METEOR** plummeting toward Earth may have been the cause of a sonic boom that shook parts of southern New Zealand yesterday, scientists said.

CBC News Online



**THE SUPERINTENDENT** of the Mt. John Observatory told New Zealand National Radio that the sonic boom indicated the meteor was travelling "very low" and was probably between the size of a baseball and a basketball.

CBC News Online